KAMAG K24
SELF-PROPELLED MODULAR TRANSPORTERS
The TII Group moves the world: Seventy percent of all transports over 3,000 tons and ninety percent of all transports over 5,000 tons are performed using vehicles by the TII Group.

With its brands SCHEUERLE, NICOLAS, KAMAG and TIGER, the group of companies has production sites in Germany, France and India as well as a production cooperation in North America (Florida). It assists and advises its customers with a globally active sales and service organization. Heavy-duty vehicles by the TII Group transport entire industrial plants, ships, submarines, oil and offshore platforms, turbine, construction machinery but also slag pots and ladles in the remotest corners of the world.

“...for our customers, we bring around 400 years of experience in heavy-duty transport, accumulated by four companies, into play, thus securing their future economic success of tomorrow today.”

Senator E. h. Otto Rettenmaier, multi-entrepreneur and founder of the TII Group
As a full-range supplier, the TII Group offers a wide range of vehicles to move loads of all kinds, from the modular, self-propelled transporter (SPMT) to transport loads of 17,200 tons and more all the way to vehicles for stock handling in yard logistics.
KAMAG K24

ÜBERSICHT

KAMAG K24

KAMAG K24 _____________ 08
Model types & accessories ___ 10
Coupling variations ________ 12
Combination illustration _____ 13
Axle load _________________ 14
Control technology _________ 16
Accessories ______________ 18
K24 Stretch _____________ 20
Power Pack Units __________ 22
With the KAMAG K24, KAMAG Transporttechnik manufactures a proven and globally used modular, self-propelled transporter. Its hydraulic steering system has been proven for decades. Due to an extensive accessories program, the main components are rounded out to a multi-functional transport system for heavy loads of almost any shape and size. The KAMAG K24 can be loaded on container flat racks, making it an economical solution around the world. It can be coupled mechanically “side-by-side” or “end-to-end” as well as used in open combinations. It comes with a wireless or cable remote control.
KAMAG K24

MODEL TYPES AND BASIC ACCESSORIES
YOUR MODULAR SYSTEM FOR PROFITABLE HEAVY-DUTY TRANSPORT

Combination K24 + PPU

Modular bogie unit K24 with 4 / 5 / 6 axles
PPU Midi with 150 kW *
PPU Maxi with 290 kW **
PPU Maxi with 390 kW ***

Combination K24 + 2x K24 Stretch Type + PPU

Modular bogie unit K24 with 4 / 5 / 6 axles
2 modular bogie units K24 Stretch Type
PPU Midi with 150 kW
PPU Maxi with 290 kW
PPU Maxi with 390 kW

* PPU Midi with 150 kW, Deutz with emission standard 3a
** PPU Maxi with 290 kW, CAT with emission standard 3a
*** PPU Maxi with 390 kW, MTU with emission standard Tier 4 final

Dimensions

Axle lines | Length K24
---|---
4 | 5,600 mm
5 | 7,000 mm
6 | 8,400 mm

K24 Stretch

unlimited extendable

Spacer

Tilting device
Load distributor
Cabin
Bolster
**KAMAG K24**

**COUPLING VARIATIONS**

**UNLIMITED POSSIBILITIES**

**Mechanically coupled “side-by-side”**

![Mechanically coupled “side-by-side” diagram]

- 2 modular bogie units
- K24 with 4 / 5 / 6 axles
- PPU Midi with 150 kW
- PPU Maxi with 290 kW
- PPU Maxi with 390 kW

**Mechanically coupled “end-to-end”**

![Mechanically coupled “end-to-end” diagram]

- 2 modular bogie units
- K24 with 4 / 5 / 6 axles
- PPU Midi with 150 kW
- PPU Maxi with 290 kW
- PPU Maxi with 390 kW

**Mechanically coupled in large combinations**

<table>
<thead>
<tr>
<th>PPU</th>
<th>max. axle lines</th>
<th>driven axlelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 kW</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>290 kW</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>390 kW</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>2 x 37 kW electric</td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

**Open compound: The alternative to mechanical coupling**

- **T-combination**
- **Y-combination**
- **V-Combination**
- **Circle-combination**
**SKY IS THE LIMIT**

**TRANSPORT ANY PAYLOAD WITH THE KAMAG K24**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Payload Capacity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x K24 6-axle, 1x PPU Midi 150 kW</td>
<td>288 t payload*</td>
<td>*with 48 t axle load, minus dead weight and PPU</td>
</tr>
<tr>
<td>2x3 K24 6-axle, 1x PPU Maxi 290 kW / 390 kW</td>
<td>1,728 t payload*</td>
<td></td>
</tr>
<tr>
<td>4x3 K24 6-axle, 2x PPU Maxi 290 kW / 390 kW</td>
<td>3,456 t payload*</td>
<td></td>
</tr>
</tbody>
</table>
KAMAG K24

AXLE LOAD
VARIABLE AXLE LOADS, PERFECTLY ADAPTABLE TO LOAD AND SURFACE

AVAILABLE VARIATIONS
- 40 t axle load with pneumatic tires
- 48 t axle load with pneumatic tires
- 48 t axle load with polyfill tires
- 60 t axle load with polyfill tires

ADVANTAGES OF PNEUMATIC TIRES
- Lower dead weight
- Economic
- Increased self-damping
- Lower ground pressure

ADVANTAGES OF POLYFILL TIRES
- Increased failure safety
- Higher axle load possible
- More tip-resistant due to increased tire rigidity

Pneumatic tires 40 t

Pneumatic tires 48 t

Polyfill tires 48 t

Polyfill tires 60 t

*minus dead weight
The sophisticated steering technology of the KAMAG K24 allows precision-positioning of the heaviest of loads. The individual module transporters can be coupled in any combination, either mechanically or in open combinations. The steering technology guarantees the synchronized control of all module transporters integrated in the coupling mode. Electronic all-wheel steering makes the module transporters extremely maneuverable. This makes them suitable to transport almost any load.

Steering programs

- Front-wheel steering lengthwise
- Rear-wheel steering lengthwise
- Diagonal steering lengthwise
- Diagonal steering crosswise
- Front-wheel steering crosswise
- Rear-wheel steering crosswise
- Circle steering
- All-wheel steering lengthwise
- All-wheel steering crosswise
- +130°/-100° Steering angle
Swivel bolsters
Swivel bolsters with payloads of 300 to 600 tons allow the transport of self-supporting long loads.

Spacers
Spacers are used to mechanically connect multiple vehicle modules. Available lengths: 2.80 m - 8.40 m

Driver's cabin
The optional driver's cabin allows for safe and comfortable operation in bad weather or low outside temperatures.

Remote control
Wireless or cable remote controls with an ergonomic design facilitate precise control of the vehicles.

Other available accessories
/ Lashing hook
/ T-media carrier
/ Lifting device
The K24 Stretch can be divided in the middle and thus enlarged by means of an added widening adapter. This helps you economize in multiple ways: on unnecessary modules, time and personnel. In addition, you increase the contact area of the load and thus its stability.

<table>
<thead>
<tr>
<th>2 K24 stretch modules</th>
<th>PPU Midi with 150 kW *</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4 / 5 / 6 axles)</td>
<td>PPU Maxi with 290 kW **</td>
</tr>
<tr>
<td>with widening adapter</td>
<td>PPU Maxi with 390 kW ***</td>
</tr>
</tbody>
</table>

* PPU Midi with 150 kW, Deutz with emission standard 3a
** PPU Maxi with 290 kW, CAT with emission standard 3a
*** PPU Maxi with 390 kW, MTU with emission standard Tier 4 final
Modular vehicles by the TII Group are powered by special driving units, the so-called PPU (Power Pack Units). These comply with the latest emission standards (EU 4/Tier 4 final). Today, vehicles of the TII Group are powered by PPU with combustion engines, electric and hybrid drives and are used under most difficult conditions around the world. The standard for KAMAG K24 are the midi series with 150 kW and the maxi series with 290 to 390 kW. The PPU are normally mounted on the front of the vehicle or combination but can also be carried behind the vehicle or even on the side of the vehicle.

**POWER PACK UNITS**

**DRIVING UNITS FOR MODULE TRANSPORTERS AND COMBINATIONS**

- **PPU Midi mit 150 kW**
  - Deutz
  - Emmision standard 3a

- **Maxi mit 290 kW**
  - CAT
  - Emmision standard 3a

- **PPU Maxi mit 390 kW**
  - MTU
  - Emmision standard Tier 4 final
Available to you 24/7
SCHEUERLE, NICOLAS, KAMAG and TIGER have bundled their customer service for all brands and sites in the joint sales organization TII Sales GmbH & Co. KG. With a wide network of representatives and their own distribution centers, the TII Sales staff is available as your point of contact around the world. This guarantees comprehensive consulting on the spot, right from the start.

Benefit from us!
Whether you would like to convert an existing fleet or solve individual transportation issues – TII Sales offers the required expertise to always provide customers of the TII Group with the ideal solution. We recognize specific requirements, discuss them with you and promptly offer the best vehicles. In doing so, we will focus on the future together. How is the market developing, how can you change your existing fleet if needed, which accessories and expansions are worth considering to grow your business – TII Sales will advise you in all of these questions and provide you with the collective know-how of all four companies.
Engineering hand in hand
In close cooperation with developers and designers, the project engineers of the TII Group develop application-specific solutions. In close consultation with the customer, the respective requirements are first identified and analyzed with the customer. Then, we determine which modifications must be made on existing models or what a redevelopment needs to look like to meet all your needs.

With you through all project stages
Customers are continuously assisted by the sales team even when it comes to order processing. From proposal via project implementation all the way to delivery, you will be assisted by the TII Sales representative responsible for you. Members of the sales organization are traveling around the globe. They have a vast know-how of industries and an eye for individual solutions. They will be there for you whenever and wherever they are needed.

Contact Sales
Phone: +49 7941 691 271
Fax: +49 7941 691 178
E-Mail: sales@tii-sales.com
The service offered by the TII Group provides for global support during the entire service life of the vehicles. Service team members can be reached 24/7 via a free hotline. From the acceptance of new vehicles, training and instructions on the vehicle via modifications and overhauls all the way to repairs and the supply of spare parts, the TII Group offers all types of services to ensure the efficient operation of the vehicles for their customers worldwide. This range of services is complemented by accompanying support services. In particular, this includes financing support, procurement of used vehicles to other interested parties, consulting on planned transports as well as tailor-made service packages. Building on the specific product data, the documentation and operating instructions, training measures are performed on the product to address the customer’s needs. An essential element of the service range also includes modifications and overhauls. With targeted measures, customers can ensure an even longer-term use of the vehicles acquired. Immediate support is ensured by the global cooperation with service partners and our own technicians. A well-assorted stock of spare parts facilitates prompt maintenance. The TII Group offers security of supply for spare parts and small accessories for the entire product range and the regular life cycle of a product, thus guaranteeing operational reliability for the user.

Contact Service
Phone: +49 7941 691 111
E-Mail: service@tii-sales.com
TII as an employer
The TII Group offers its employees opportunities that would not normally be available in major corporations. The international character of the business with heavy-duty vehicles – over 70% are exported worldwide – brings a cosmopolitan flair to the daily working life. A steelworks vehicle for Oman, a modular transport solution for Colombia, mining equipment for Australia. At the TII Group, new employees notice from the very beginning that they are moving something on a global scale, both literally and figuratively. Joining the company is possible at all stages of life – the TII Group offers opportunities for trainees, students, young and experienced professionals.

Vocational Training
At the company’s in-house vocational training center, the TII Group provides apprenticeships in all professions typical for the industry. In the process, future construction mechanics, mechatronics engineers, product designers, industrial clerks and office clerks are not only provided with solid basic knowledge but also specialist knowledge. Due to insights gained in related departments such as design or project planning, apprentices at the TII Group get a glimpse of the bigger picture early on.

Cooperative studies, internships or final paper
Be it engineering, business management or computer science: The TII Group offers dual courses of study in cooperation with renowned colleges (DHBW). Furthermore, students often like taking the opportunity to gain their first professional experience through internships at the TII Group.

Starting out with and without professional experience
The TII Group offers attractive career options for qualified skilled workers, young professionals and professionals with years of experience. Be it as a skilled worker in production, as an engineer in design or as a manager in sales - dedication and performance are rewarded at the TII Group. Our global presence offers an interesting working environment, not only for members of the sales and service staff traveling around the globe. Flat hierarchies and open structures guarantee responsible, independent actions.

Contact Career
SCHEUERLE
Bettina Yel
bettina.yel@scheuerle.com

NICOLAS
Agnès Hooghe
agnes.hooghe@nicolas.fr

KAMAG
Anja Scharf
anja.scharf@kamag.com